

### **CLAIMS**

1. A method of component casting comprising forming a mould with a displaced deflector element adjacent to a part of a principal mould formation whereby the deflector element controls the rate of heat loss from that part of the principal mould formation.
2. A method as claimed in claim 1 wherein the mould is formed by a lost wax process or stereo lithographic process.
3. A method as claimed in claim 1 or claim 2 wherein the displaced deflector element is secured to a downpole of the mould.
4. A method as claimed in claim 1 or claim 2 wherein the displaced deflector element is secured to a separate upstanding leg to present the deflector element to the principal mould formation.
5. A method as claimed in any preceding claim wherein the deflector element is coated for improved radiation with a low emission material.
6. A method as claimed in claim 5 wherein the deflector element is coated with a magnesium oxide coating.
7. A mould for component casting comprising a principal mould formation and a displaced deflector element immediately adjacent a part of the principal mould

formation to control in use the rate of heat loss from that part of the principal mould formation.

8. A mould as claimed in claim 7 wherein the mould includes a downpipe from which the displaced deflector element is secured.

9. A mould as claimed in claim 7 wherein the mould includes an upstanding leg to present the deflector element to the principal mould formation.

10. A mould as claimed in any of claims 7 to 9 wherein the displaced deflector is coated with a low emission material.

11. A mould as claimed in claim 10 wherein the low emission material is a magnesium oxide coating.

12. A mould as claimed in any of claims 7 to 11 wherein the displaced deflector element is approximately 2mm to 3mm thick.

13. A mould as claimed in any of claims 7 to 12 wherein the displaced deflector element has a configuration such that there is at least a 15mm wide overlap with the principal mould formation.

14. A mould as claimed in any claims 7 to 13 wherein the mould is formed from a ceramic material located about a wax perform of a desired component casting.

15. A method of component casting substantially as hereinbefore described with reference to the accompanying drawings.

16. A mould substantially as hereinbefore described with reference to the accompanying drawings.

17. A component casting formed by a method as claimed in any claims 1 to 6 or claim 15.

18. A component casting formed using a mould as claimed in any of claims 7 to 14 or claim 16.

19. An engine incorporating a component casting formed by a method as claimed in any of claims 1 to 7 or claim 15.

20. An engine incorporating a component casting formed using a mould as claimed in any of claims 7 to 14 or claim 16.

21. Any novel subject matter or combination including novel subject matter disclosed herein, whether or not within the scope of or relating to the same invention as any of the preceding claims.